

Please amend the above-entitled application as follows:

IN THE CLAIMS:

a. Please amend the claims as follows:

1. (Amended) An [[E]]emergency [[L]]lighting [[B]]battery
[[S]]system, comprising:
 - a [[B]]battery;
 - a [[P]]processing [[C]]circuit;
 - ~~a multi-voltage power circuit; and~~
 - a multi-voltage input including a single input channelwherein the single input channel is adapted to connect to various
power sources; and
 - an [[O]]occupation [[A]]awareness [[S]]sensor.
2. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery
[[S]]system of claim 1, further comprising:
 - a [[C]]current [[S]]sensor; and
 - a [[V]]voltage [[S]]sensor.
3. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery
[[S]]system of claim 2, further comprising:
 - a [[L]]lighted [[P]]push-[[B]]button [[T]]test [[S]]switch.

4. (Amended) ~~The Emergency Lighting Battery System of claim 3,~~
~~further comprising:~~ An emergency lighting battery system,
comprising:

a battery;
a processing circuit;
a multi-voltage power circuit;
an occupation awareness sensor;
a current sensor;
a voltage sensor;
a lighted push-button test switch; and
an inverter frequency sensor.

5. (Amended) The [[E]]emergency [[L]]ighting [[B]]attery
[[S]]ystem of claim 3, wherein said [[P]]rocessing [[C]]ircuit
comprises:

a [[P]]rocessing [[D]]evice, and
a [[W]]atch-[[D]]og [[T]]imer.

6. (Amended) The [[E]]emergency [[L]]ighting [[B]]attery
[[S]]ystem of claim 5, wherein said [[P]]rocessing [[C]]ircuit
further comprises:

a [[V]]olatile [[M]]emory; and
a [[N]]on-[[V]]olatile [[M]]emory.

7. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[P]]processing [[C]]circuit further comprises an [[O]]optional [[R]]real-[[T]]time [[C]]clock.

8. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[P]]processing [[D]]device comprises:

at least one [[F]]flag [[R]]register; and

a [[P]]pseudo [[R]]real-[[T]]time [[C]]clock.

9. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 5, wherein said [[P]]processing [[D]]device comprises:

at least one [[F]]flag [[R]]register;

a [[P]]pseudo [[R]]real-[[T]]time [[C]]clock;

an [[O]]optional [[V]]volatile [[M]]memory; and

an [[O]]optional [[N]]non-[[V]]volatile [[M]]memory.

10. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 6, wherein said [[N]]non-[[V]]volatile [[M]]memory stores [[P]]processor [[C]]configuration [[D]]data.

11. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 10, wherein said [[P]]processor [[C]]configuration [[D]]data comprises:

a [[R]]random [[D]]days [[V]]variable; and

a [[R]]random [[T]]test [[N]]number.

12. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 10, wherein said [[N]]non-[[V]]volatile [[M]]memory stores [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state.

13. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 9, wherein said [[O]]optional [[N]]non-[[V]]volatile [[M]]memory stores [[P]]processor [[C]]configuration [[D]]data.

14. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 13, wherein said [[P]]processor [[C]]configuration [[D]]data comprises:

a [[R]]random [[D]]days [[V]]variable; and

a [[R]]random [[T]]test [[N]]number.

15. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 13, wherein said [[O]]optional [[N]]non-

[[V]]volatile [[M]]memory stores [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state.

16. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 5, wherein said [[P]]processing [[D]]device runs a [[S]]state [[M]]machine.

17. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 16, wherein said [[S]]state [[M]]machine comprises:

- a [[S]]sleep [[S]]state;
- an [[I]]initialization [[S]]state;
- a [[S]]start-[[U]]up [[S]]state;
- a [[C]]charge [[S]]state;
- a [[T]]test [[S]]state; and
- an [[E]]emergency [[S]]state.

18. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery [[S]]system of claim 16, wherein said [[V]]variables, [[F]]flags, and [[M]]machine [[S]]state are written to said [[N]]non-[[V]]volatile [[M]]memory on a periodic basis.

19. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 18, wherein said [[P]]_processing [[D]]_device runs a [[S]]_state [[M]]_machine.

20. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 19, wherein said [[V]]_variables, [[F]]_flags, and [[M]]_machine [[S]]_state are written to said [[N]]_non-[[V]]_volatile [[M]]_memory prior to said [[S]]_state [[M]]_machine entering a [[Te]]_test [[S]]_state.

21. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 19, wherein said [[V]]_variables, [[F]]_flags, and [[M]]_machine [[S]]_state are written to said [[N]]_non-[[V]]_volatile [[M]]_memory prior to said [[S]]_state [[M]]_machine entering an [[E]]_emergency [[S]]_state.

22. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 5, wherein said [[P]]_processing [[D]]_device performs a self-test on a periodic basis.

23. (Amended) ~~The Emergency Lighting Battery System of claim 22,~~
An emergency lighting battery system, comprising:

a battery;

a processing circuit;

a multi-voltage power circuit;
an occupation awareness sensor;
a current sensor;
a voltage sensor;
a lighted push-button test switch;
an inverter frequency sensor;
a processing device;
a watch-dog timer;
wherein said processing device performs a self-test on a
periodic basis; and
wherein [[D]]data is transmitted from said [[P]]processing
[[D]]device to said [[L]]lighted [[P]]push-[[B]]button
[[S]]switch.

24. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery
[[S]]system of claim 23, wherein said transmitted [[D]]data
includes status information.

25. (Amended) The [[E]]emergency [[L]]lighting [[B]]battery
[[S]]system of claim 24, wherein said status information is
transmitted on a periodic basis.

26. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 25, wherein said periodic status information includes error information.

27. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 25, wherein said periodic status information is transmitted at a rate beyond human perception.

28. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 27, wherein said transmitted periodic status information appears to human observers as a periodic heart beat.

29. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 2, further comprising:
a test [[S]]_switch; and
an [[E]]_external [[D]]_data [[T]]_transmission [[S]]_system.

30. (Amended) The [[E]]_emergency [[L]]_lighting [[B]]_battery [[S]]_system of claim 29, wherein said [[E]]_external [[D]]_data [[T]]_transmission [[S]]_system comprises a radio transmitter.

31. (Amended) ~~The emergency lighting battery system of claim 29,~~
An emergency lighting battery system, comprising:
a battery;

a processing circuit;

a multi-voltage power circuit;

an occupation awareness sensor;

a current sensor;

a voltage sensor;

a switch; and

an external data transmission system;

wherein said [[E]]external [[D]]data [[T]]transmission
[[S]]system comprises a powerline data interface.

32. ~~(Amended) The Emergency Lighting Battery System of claim 29,~~

An emergency lighting battery system, comprising:

a battery;

a processing circuit;

a multi-voltage power circuit;

an occupation awareness sensor;

a current sensor;

a voltage sensor;

a switch; and

an external data transmission system;

wherein said [[E]]external [[D]]data [[T]]transmission
[[S]]system transmits data to a Central Data Collection point.